Algebra 1-2

Name ANSWER KEY

Per. _____ Date _____

2.4-2.5 Review Worksheet

Target 2C (Section 2.5)

Solve (rearrange) each equation for m. Then find the value of m given a value for n.

1. $m + 3n = 7$ $\quad n = -2$

$-3n \quad -3n$

$m = 7 - 3n$

$m = 7 - 3(-2)$

$= 7 + 6$

$= 13$

2. $3m - 9n = 24$ $\quad n = 1$

$+9n \quad +9n$

$\frac{3m}{3} = \frac{9n + 24}{3}$

$m = 3n + 8$

$m = 3(1) + 8$

$= 3 + 8$

$= 11$

3. $8n = -3m + 1$ $\quad n = -2$

$+3m \quad +3m$

$3m + 8n = 1$

$-8n \quad -8n$

$\frac{3m}{3} = \frac{1}{3} - \frac{8n}{3}$

$m = \frac{1}{3} - \frac{8n}{3}$

$m = \frac{1}{3} - \frac{8(-2)}{3}$

$= \frac{1}{3} + \frac{16}{3}$

$= \frac{17}{3}$

4. $2m = -6n - 5$ $\quad n = 1$

$\frac{2m}{2} = \frac{-6n}{2} - \frac{5}{2}$

$m = -3n - \frac{5}{2}$

$m = -3(1) - \frac{5}{2}$

$= -3 - \frac{5}{2}$

$= \frac{-11}{2}$

Solve (rearrange) each equation for x.

5. $fx - gx = h$

$x(f - g) = h$

$x = \frac{h}{f - g}$

6. $m = \left(\frac{x + n}{p}\right) p$

$pm = x + n$

$-n \quad -n$

$pm - n = x$

7. $d = f + fx$

$-f \quad -f$

$\frac{d - f}{f} = \frac{fx}{f}$

$\frac{d}{f} - 1 = x$

8. $qx + x = r$

$x(q + 1) = r$

$\frac{x(q+1)}{(q+1)} = \frac{r}{(q+1)}$

$x = \frac{r}{(q+1)}$

9. $7x - y = 14$

$+y \quad +y$

$\frac{7x}{7} = \frac{y + 14}{7}$

$x = \frac{y}{7} + 2$

10. $y = 5x - 6$

$+6 \quad +6$

$\frac{y + 6}{5} = \frac{5x}{5}$

$\frac{y}{5} + \frac{6}{5} = x$

11. $y = mx + b$

$-b \quad -b$

$\frac{y - b}{m} = \frac{mx}{m}$

$x = \frac{y}{m} - \frac{b}{m}$

12. $ax + by = c$

$-by \quad -by$

$\frac{ax}{a} = \frac{c - by}{a}$

$x = \frac{c - by}{a}$

13. $A = \left(\frac{x + y}{2}\right) 2$

$2A = x + y$

$-y \quad -y$

$2A - y = x$

"Who wrote the book 'Terrible Weather'?"

Solve for x. The answer to each problem will match a letter that will allow you to figure out the joke.

1. $5x - 7 = 4x + 3$

$-4x \quad -4x$

$x - 7 = 3$

$+7 \quad +7$

$x = 10$

2. $6 + 2x = 7x - 9$

$-2x \quad -2x$

$6 = 5x - 9$

$+9 \quad +9$

$\frac{5x}{5} = \frac{15}{5}$

$x = 3$

3. $8x + 1 = -8 - x$

$+x \quad +x$

$9x + 1 = -8$

$-1 \quad -1$

$\frac{9x}{9} = \frac{-9}{9}$

$x = -1$

4. $-5 + 12x = 18x + 7$

$-12x \quad -12x$

$-5 = 6x + 7$

$-7 \quad -7$

$\frac{6x}{6} = \frac{-12}{6}$

$x = -2$

5. $-4x + 3 = 5x - 13 - x$

$+4x \quad +4x$

$3 = 8x - 13$

$+13 \quad +13$

$\frac{16}{8} = \frac{8x}{8}$

$x = 2$

6. $-10 - 11x + 24 = 3x$

$+11x \quad +11x$

$14 = 14x$

$x = 1$

7. $8 + 3x = x + 11 + 2x$

$8 + 3x = 3x + 11$

$-3x \quad -3x$

$8 = 11$ FALSE NO SOLUTION

8. $5 + 17x + 9 = 2x + 21x + 14$

$17x + 14 = 23x + 14$

$-17x \quad -17x$

$14 = 6x + 14$

$-14 \quad -14$

$0 = 6x$

$x = 0$

9. $6x + 8 - 13x + 10 = 4 - 6x - 11 + 4x$

$-7x + 18 = -2x + 7$

$+7x \quad +7x$

$18 = 5x + 7$

$-7 \quad -7$

$\frac{25}{5} = \frac{5x}{5}$

$x = 5$

10. $-14 + 5 - x - 3 = x + 6 + x + 3x$

$-12 - x = 5x + 6$

$+x \quad +x$

$-12 = 6x + 6$

$-6 \quad -6$

$\frac{-18}{6} = \frac{6x}{6}$

$x = -3$

B. 4

Y. No Solution

N. 10

I. -11

S. -2

P. -3

V. -7

E. 1

W. 5

F. -6

O. 3

A. -1

R. 2

W. 8

Y. -13

D. 0

W	A	Y	N	E	D	R	O	P	S
9	3	7	1	6	8	5	2	10	4